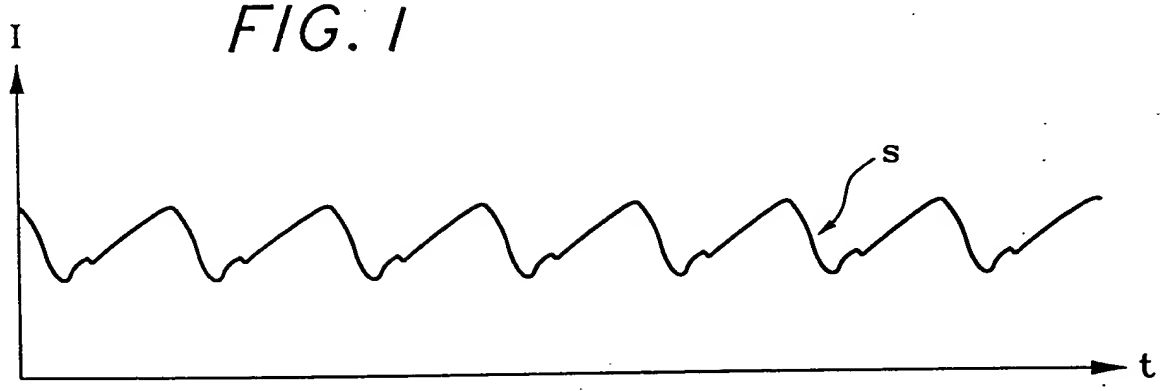
APPROVED BY

FIG. 1



8640704 "0 9 4 5 4 2 0

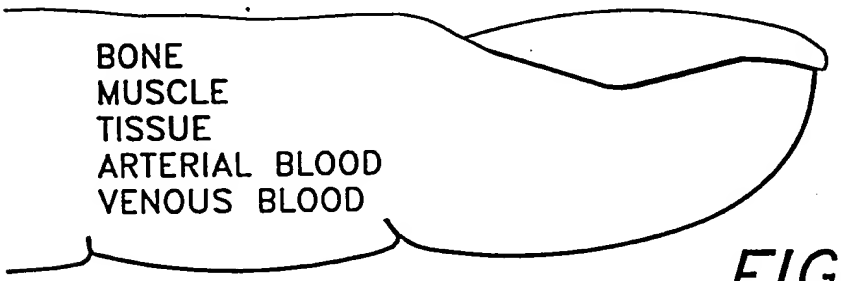
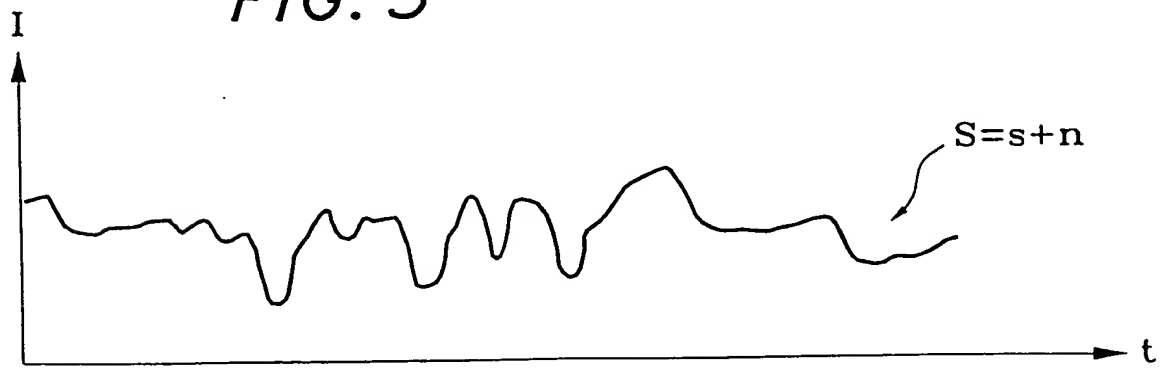


FIG. 2

FIG. 3



09TT160 "070798

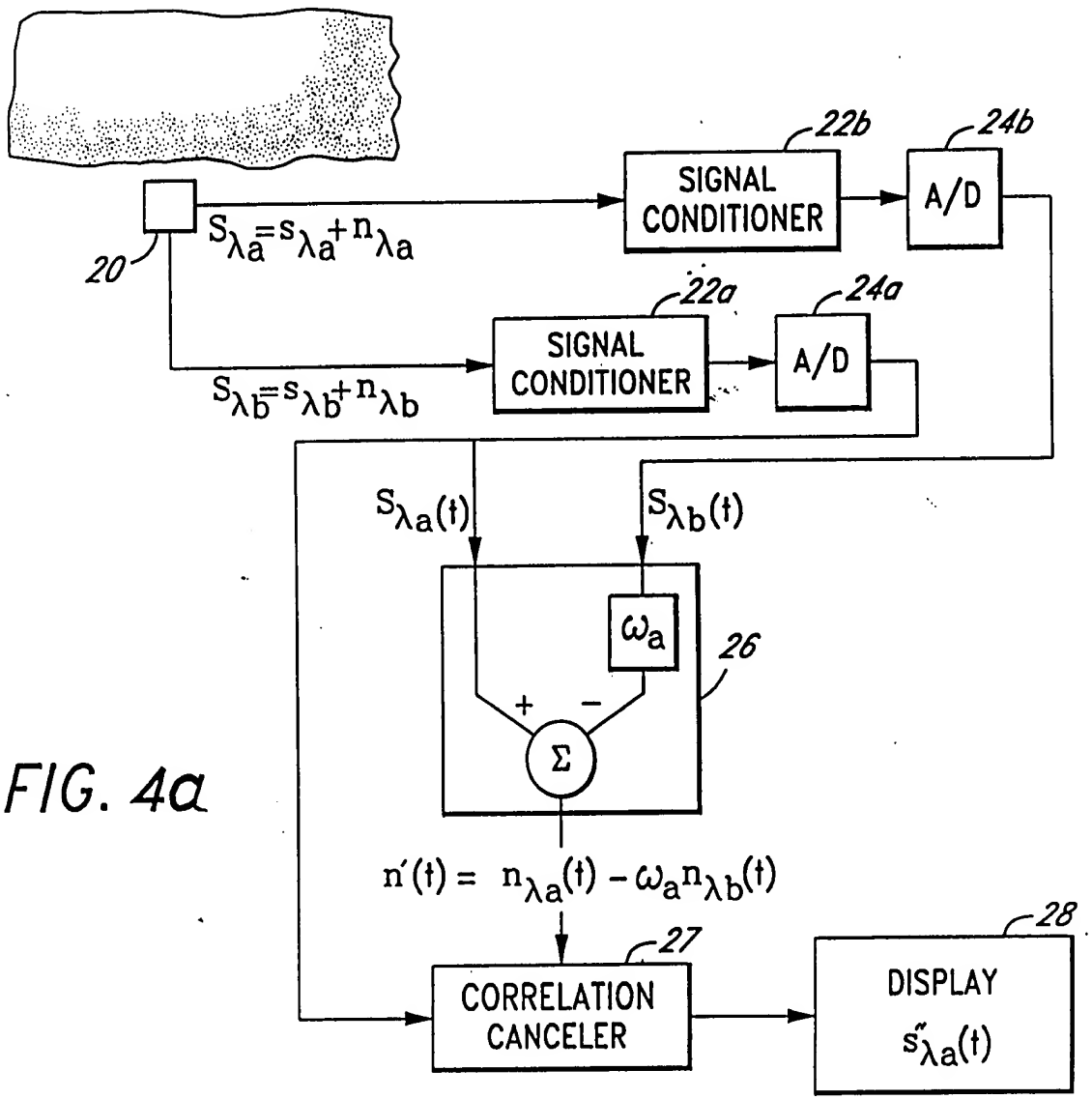


FIG. 4a

09111604 "07079B

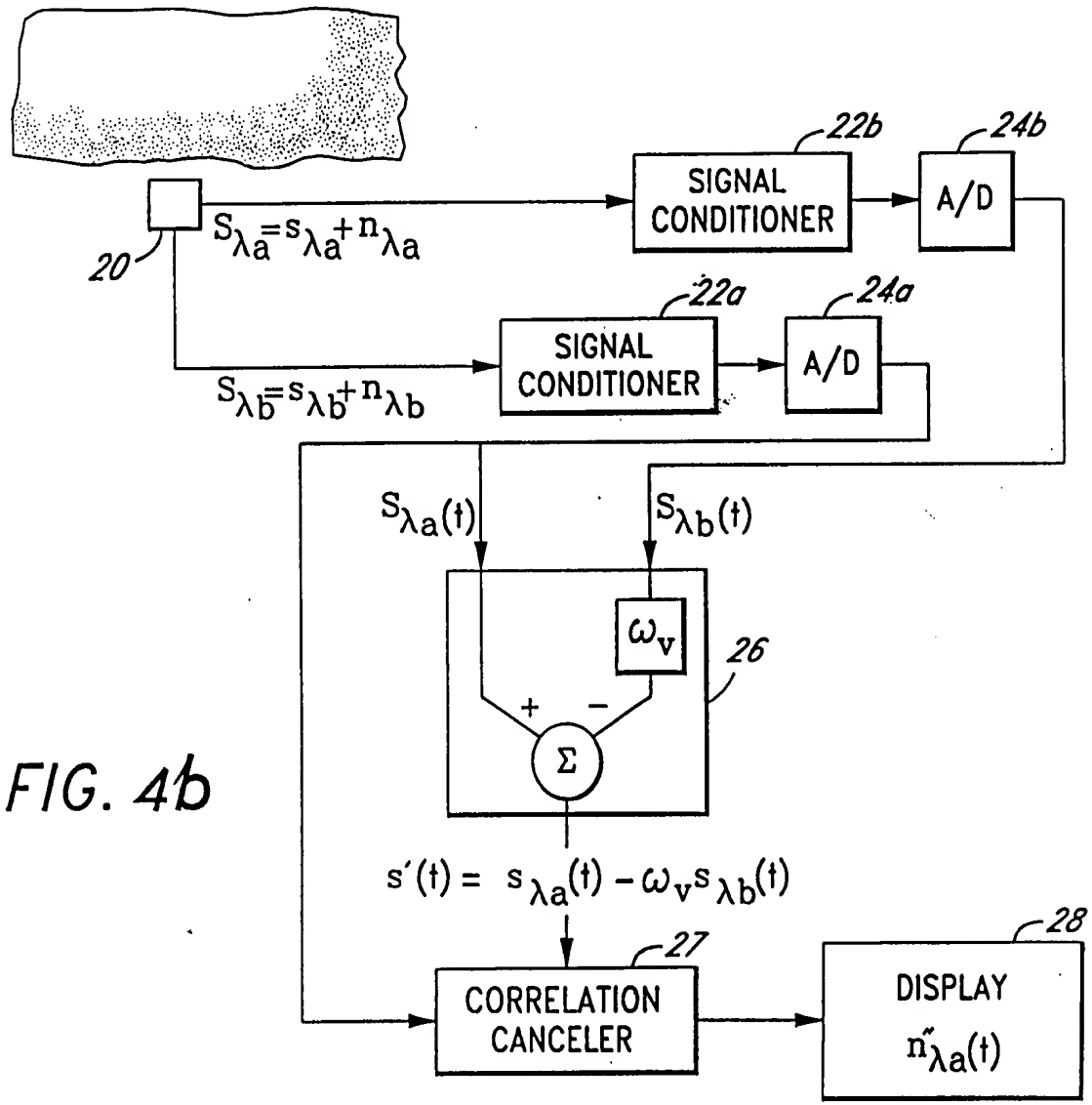


FIG. 4b

86Z020"h09TTT60

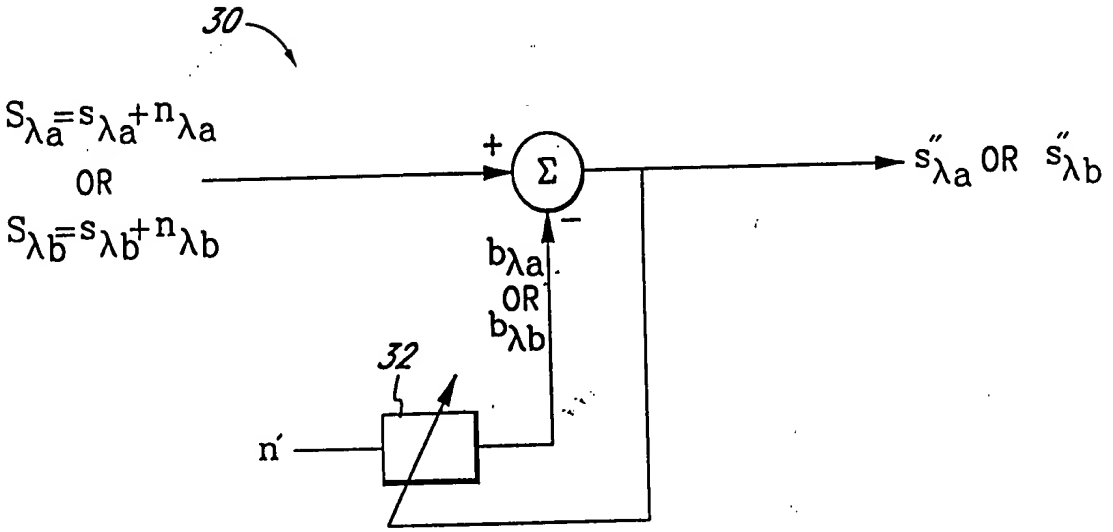


FIG. 5a

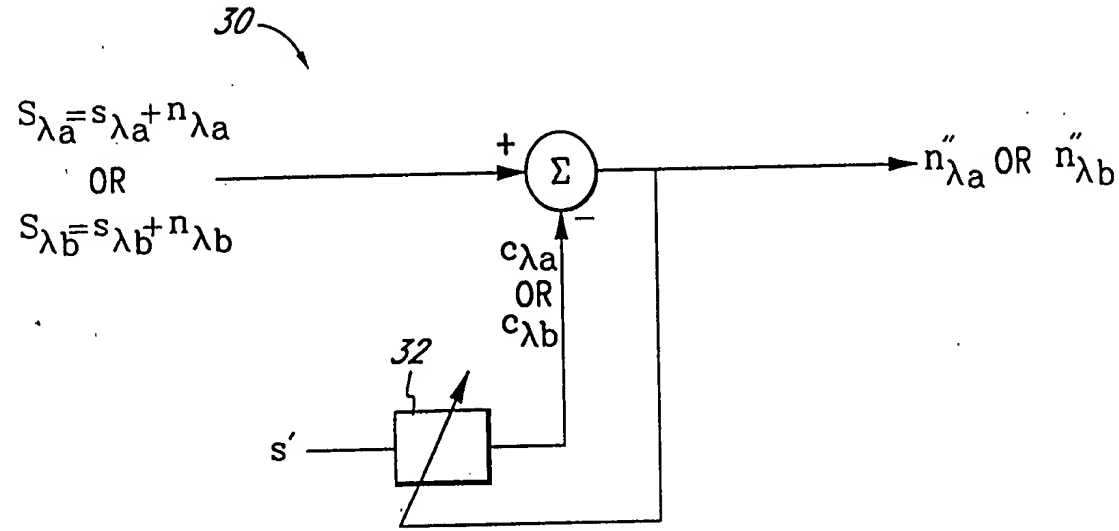


FIG. 5b

BY

96/20704 PCT/US96/05150

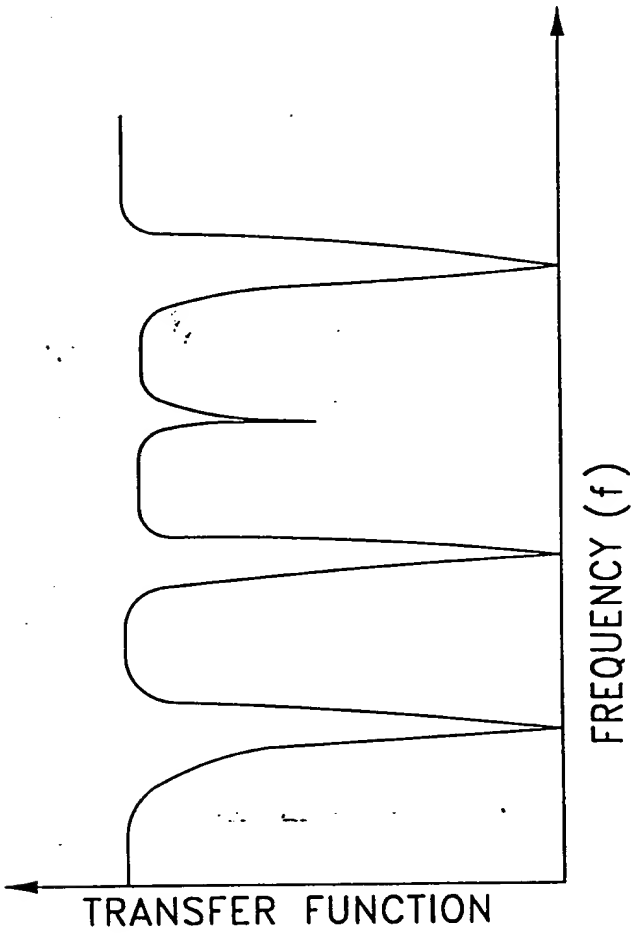


FIG. 5c

BY

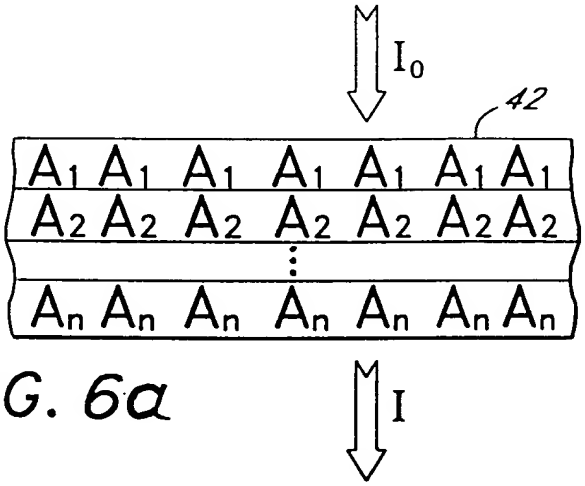


FIG. 6a

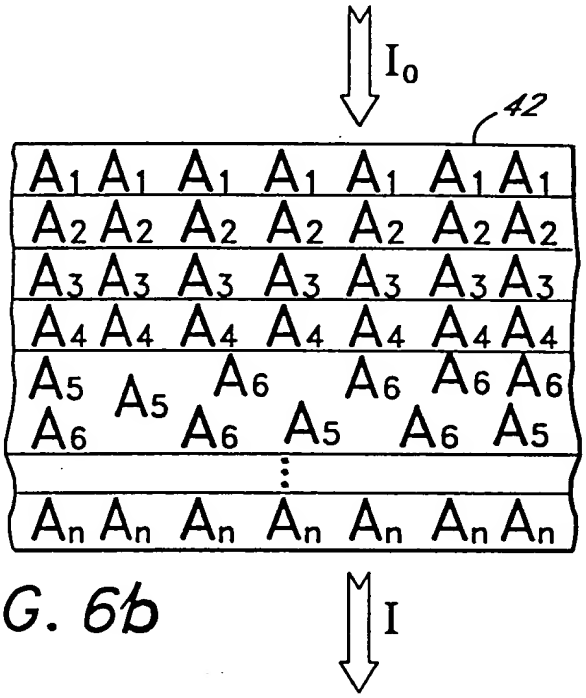


FIG. 6b

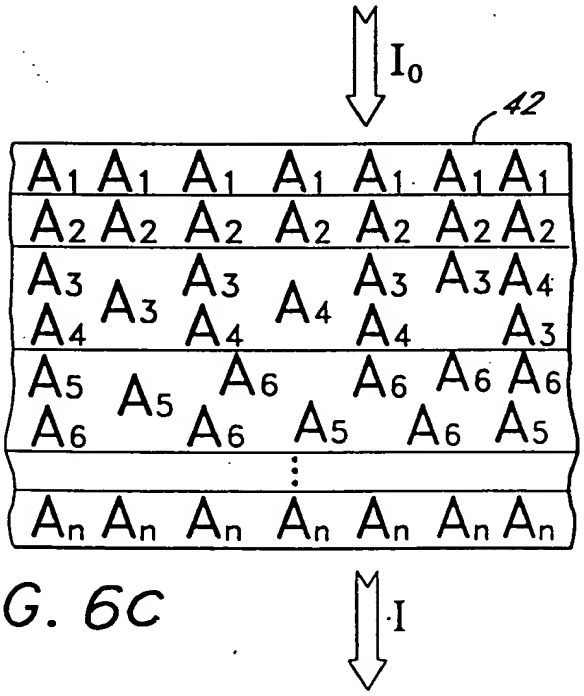


FIG. 6c

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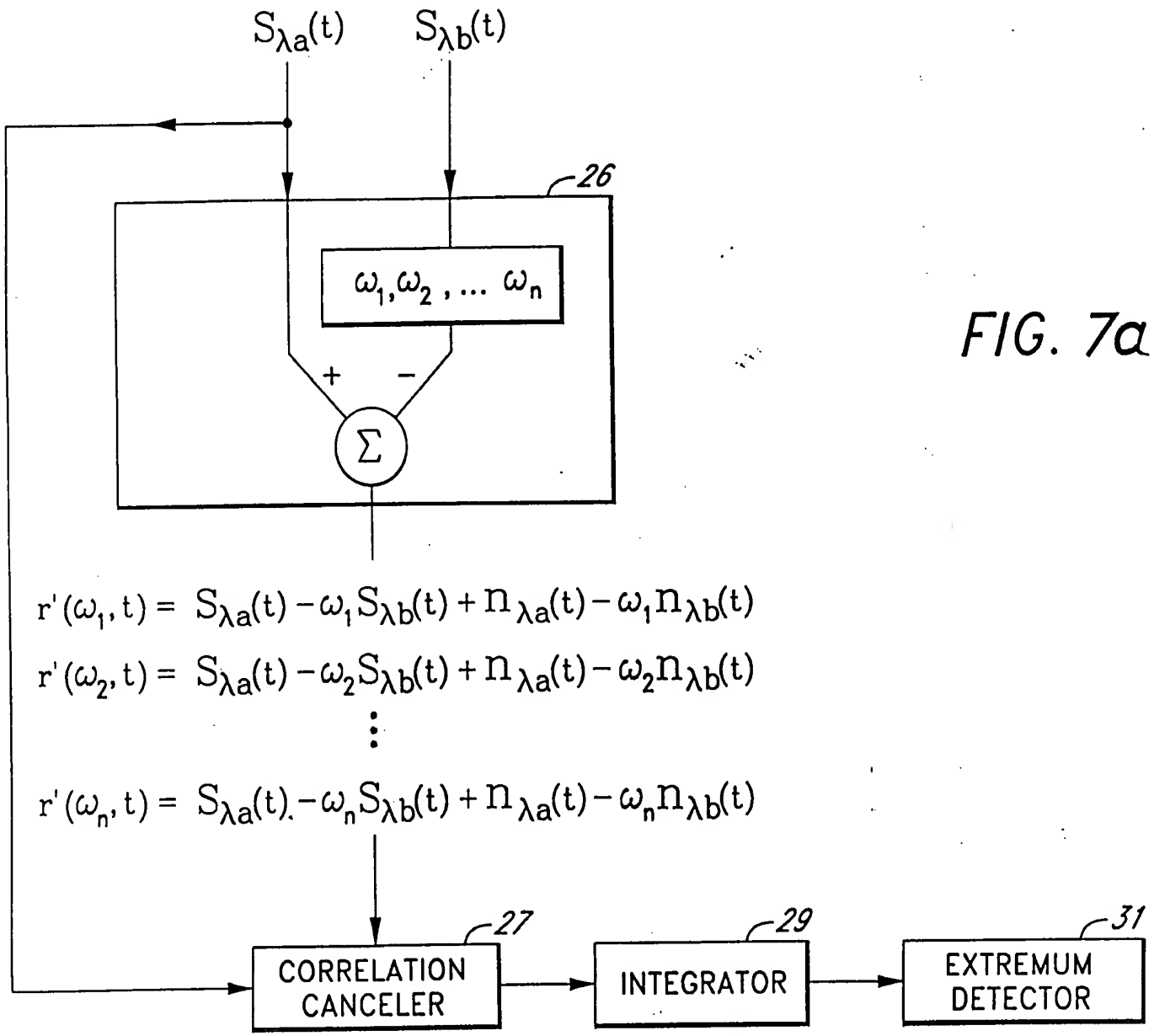
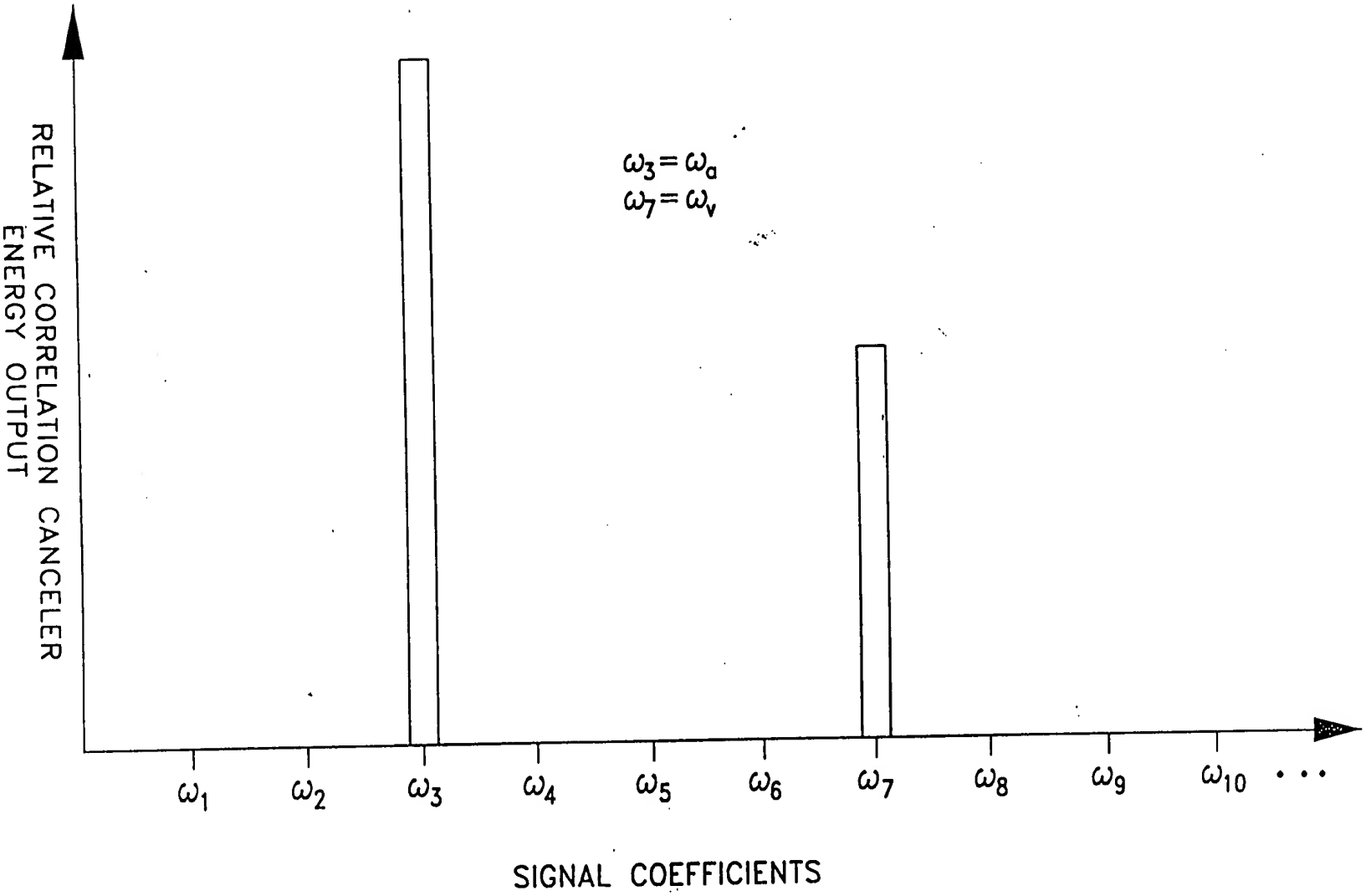


FIG. 7a

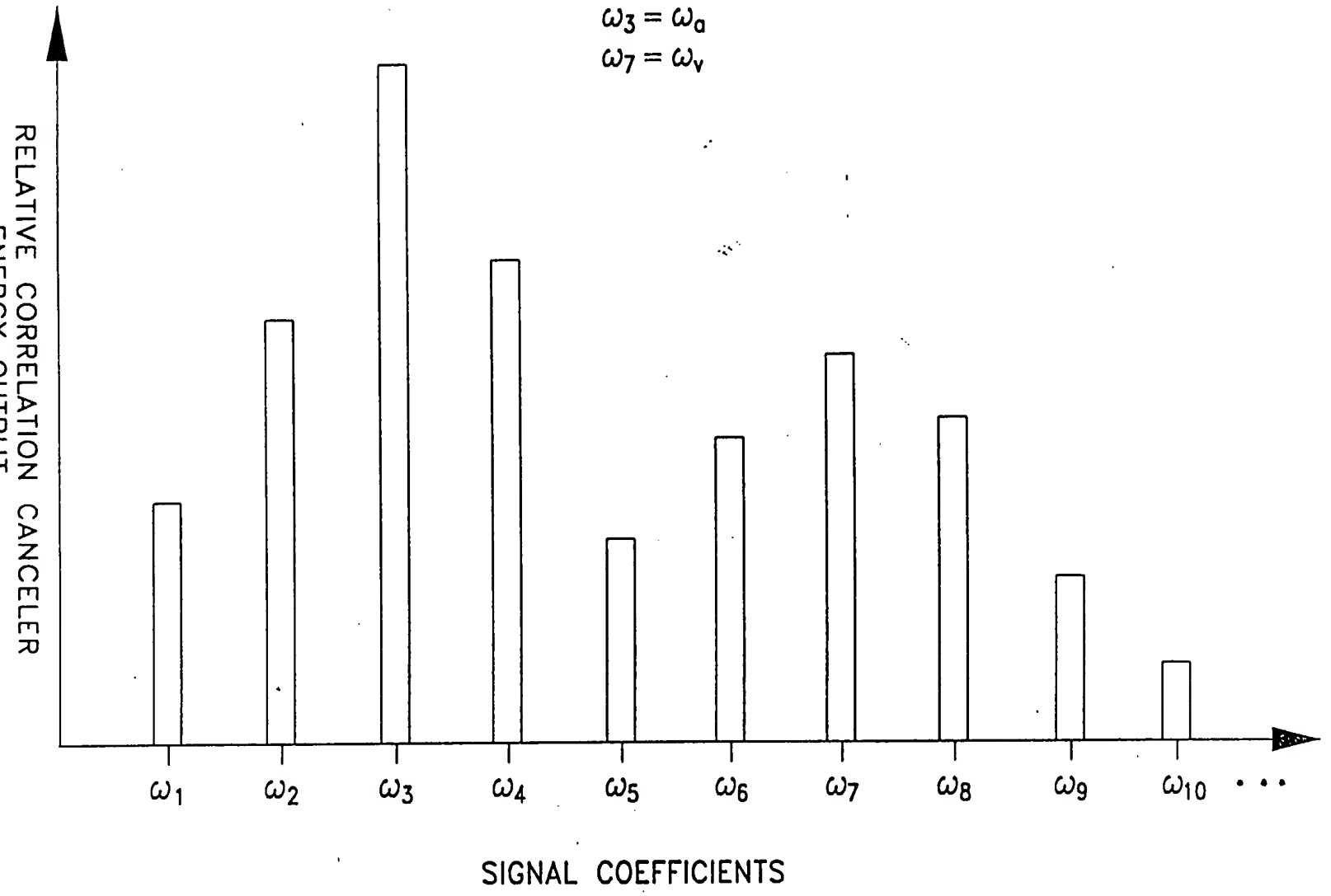
09111604 "07079B

FIG. 7b



867070 "h09TTT60

FIG. 7c



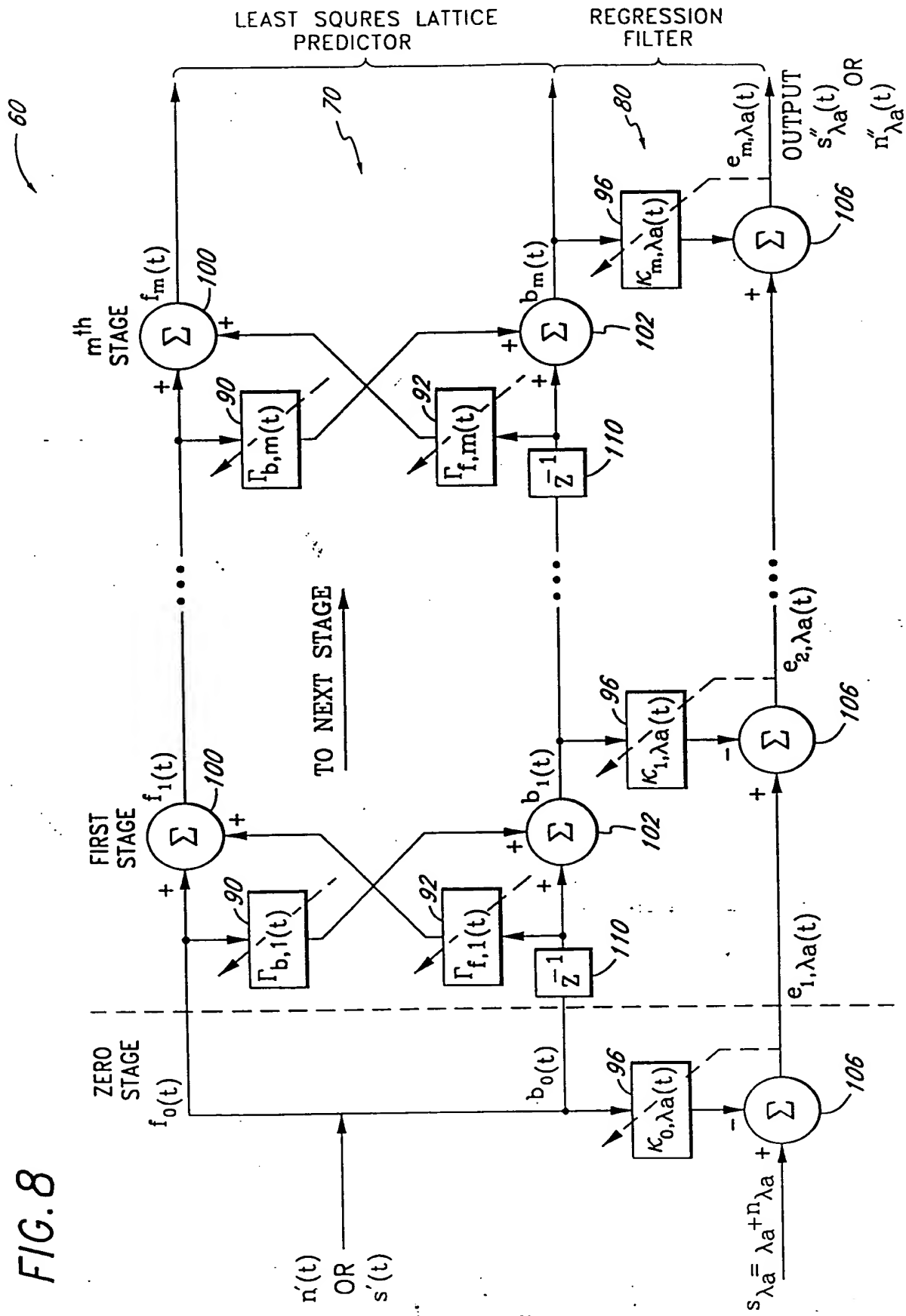

LEAST SQURES LATTICE PREDICTOR
REGRESSION FILTER
60
70
80
OUTPUT
$s''_{\lambda a}(t)$ OR $n''_{\lambda a}(t)$
$e_{m,\lambda a}(t)$
$e_{2,\lambda a}(t)$
$e_{1,\lambda a}(t)$
m^{th} STAGE
FIRST STAGE
ZERO STAGE
TO NEXT STAGE
$f_m(t)$
$f_1(t)$
$f_0(t)$
$b_m(t)$
$b_1(t)$
$b_0(t)$
$\Gamma_{b,m}(t)$
$\Gamma_{f,m}(t)$
$\Gamma_{b,1}(t)$
$\Gamma_{f,1}(t)$
$\kappa_{m,\lambda a}(t)$
$\kappa_{1,\lambda a}(t)$
$\kappa_{0,\lambda a}(t)$
z^{-1}
90
92
96
100
102
106
110
$n'(t)$ OR $s'(t)$
$s_{\lambda a}=s_{\lambda a}+n_{\lambda a}$

FIG. 8

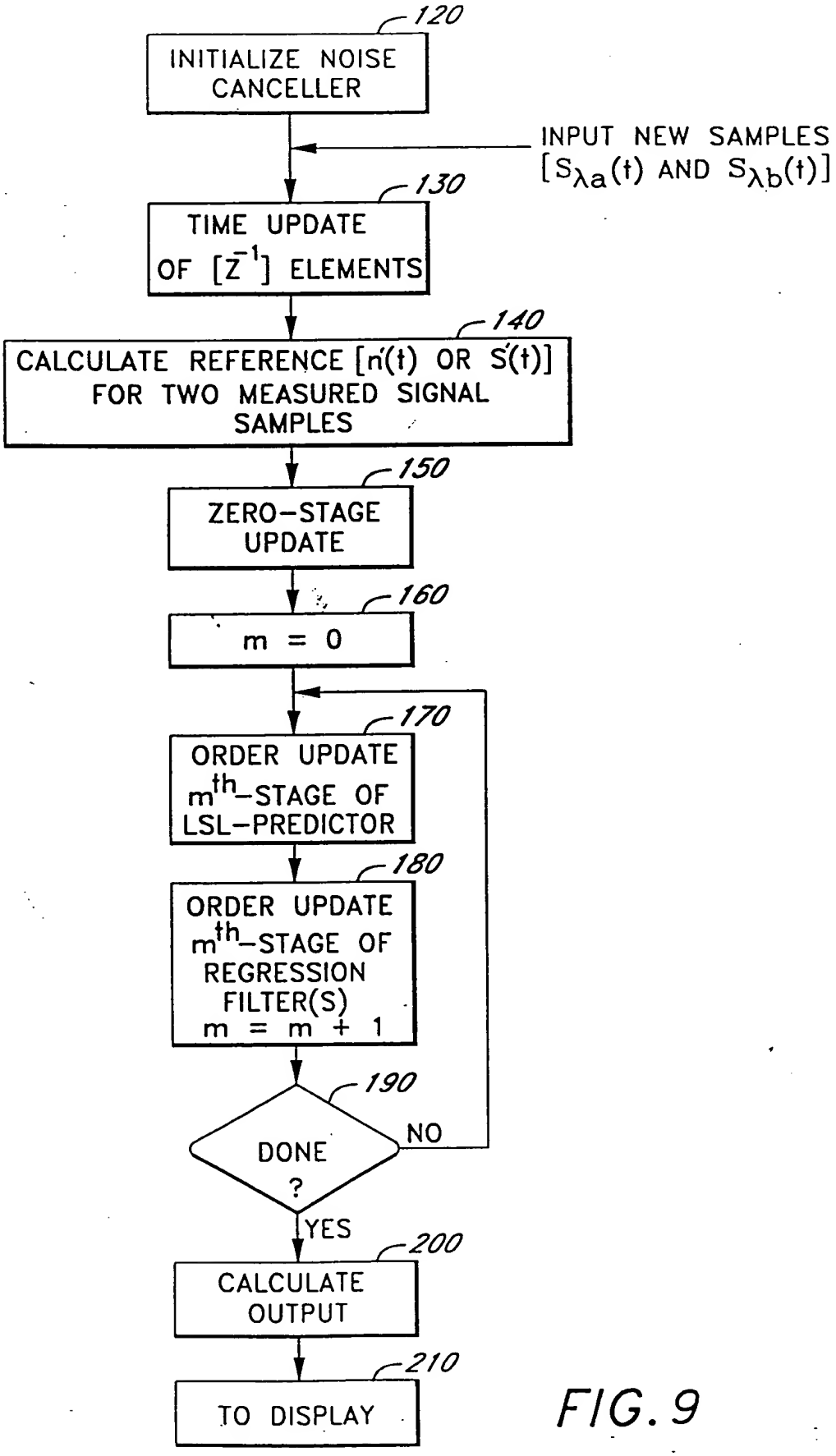
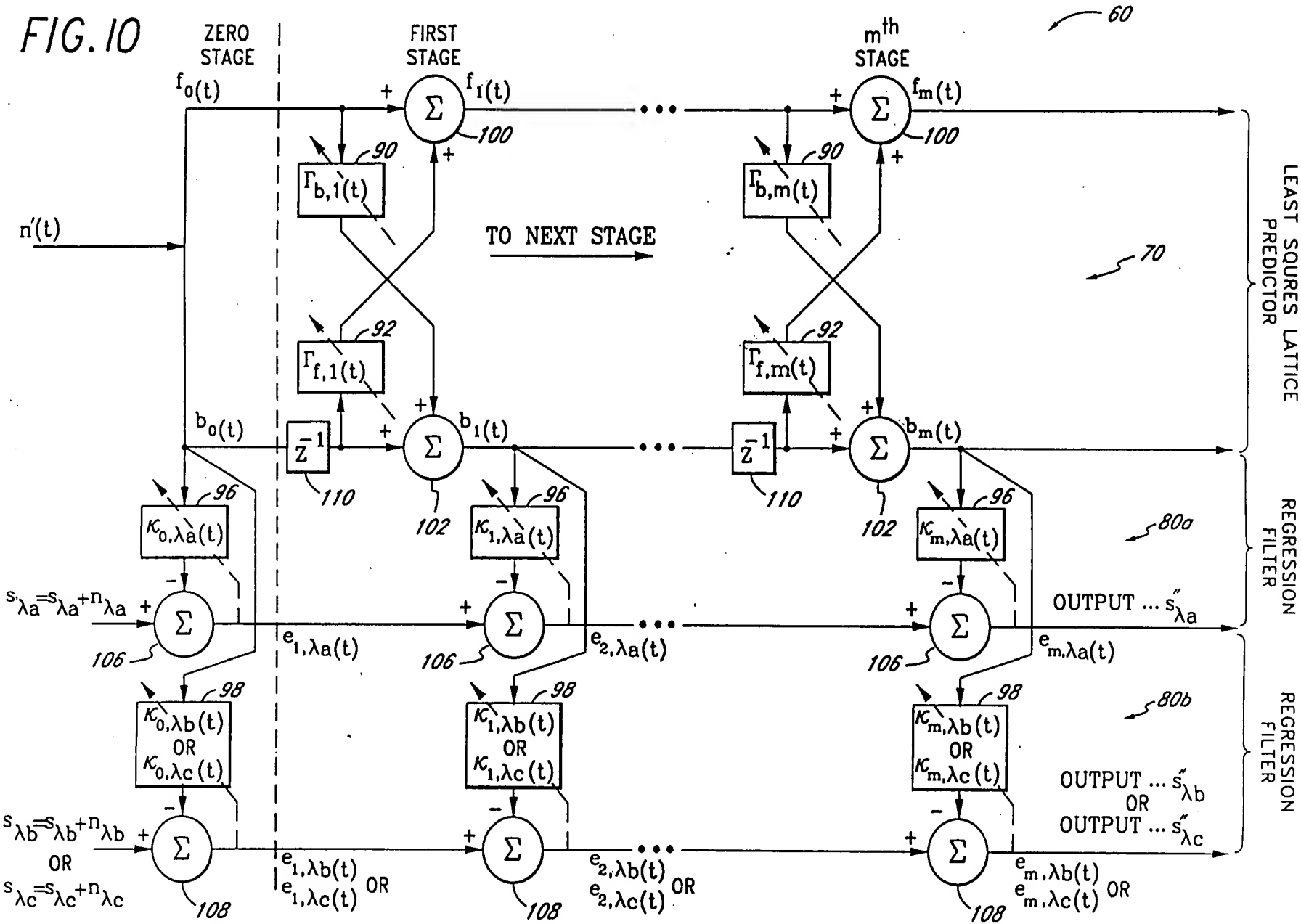

120
INITIALIZE NOISE CANCELLER
INPUT NEW SAMPLES [$S_{\lambda a}(t)$ AND $S_{\lambda b}(t)$]
130
TIME UPDATE OF [Z^{-1}] ELEMENTS
140
CALCULATE REFERENCE [$n'(t)$ OR $S'(t)$] FOR TWO MEASURED SIGNAL SAMPLES
150
ZERO-STAGE UPDATE
160
m = 0
170
ORDER UPDATE m^{th}-STAGE OF LSL-PREDICTOR
180
ORDER UPDATE m^{th}-STAGE OF REGRESSION FILTER(S)
m = m + 1
190
DONE ?
NO
YES
200
CALCULATE OUTPUT
210
TO DISPLAY

FIG. 9

09111604 "07079B

FIG. 10



09111604 "07078

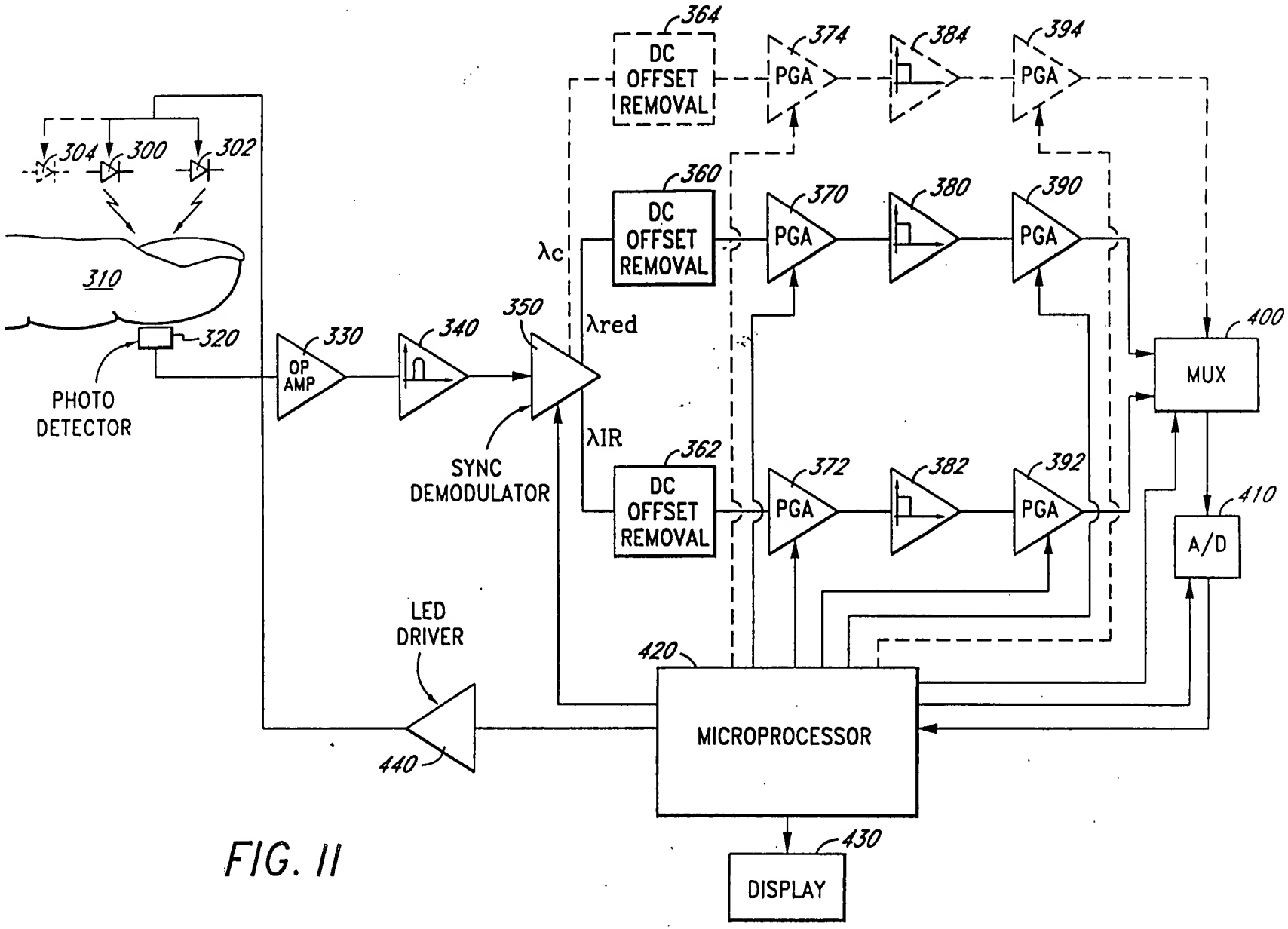


FIG. 11

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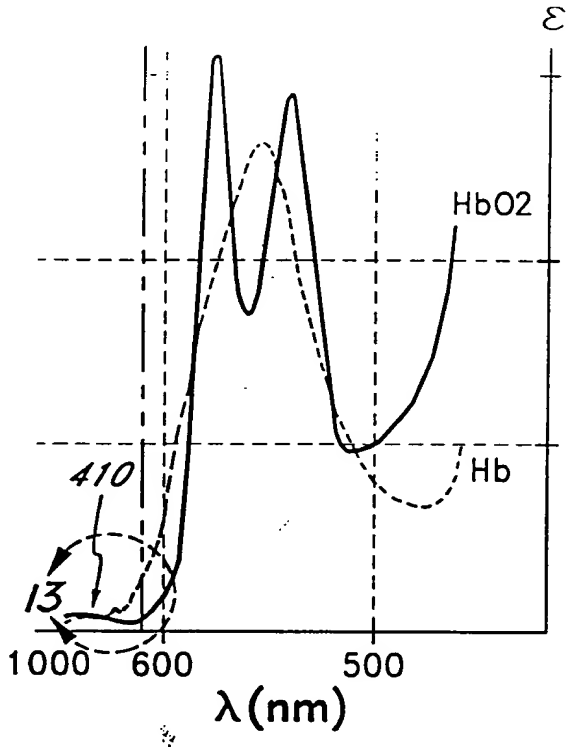
FIG. 12



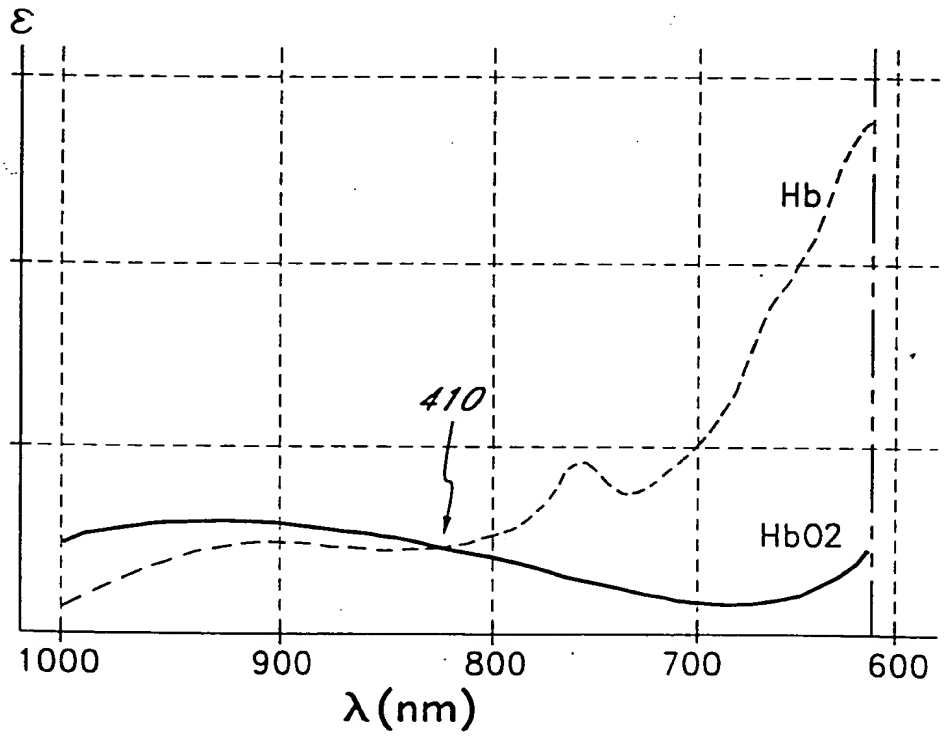


FIG. 14

86Z070" h09FFT60

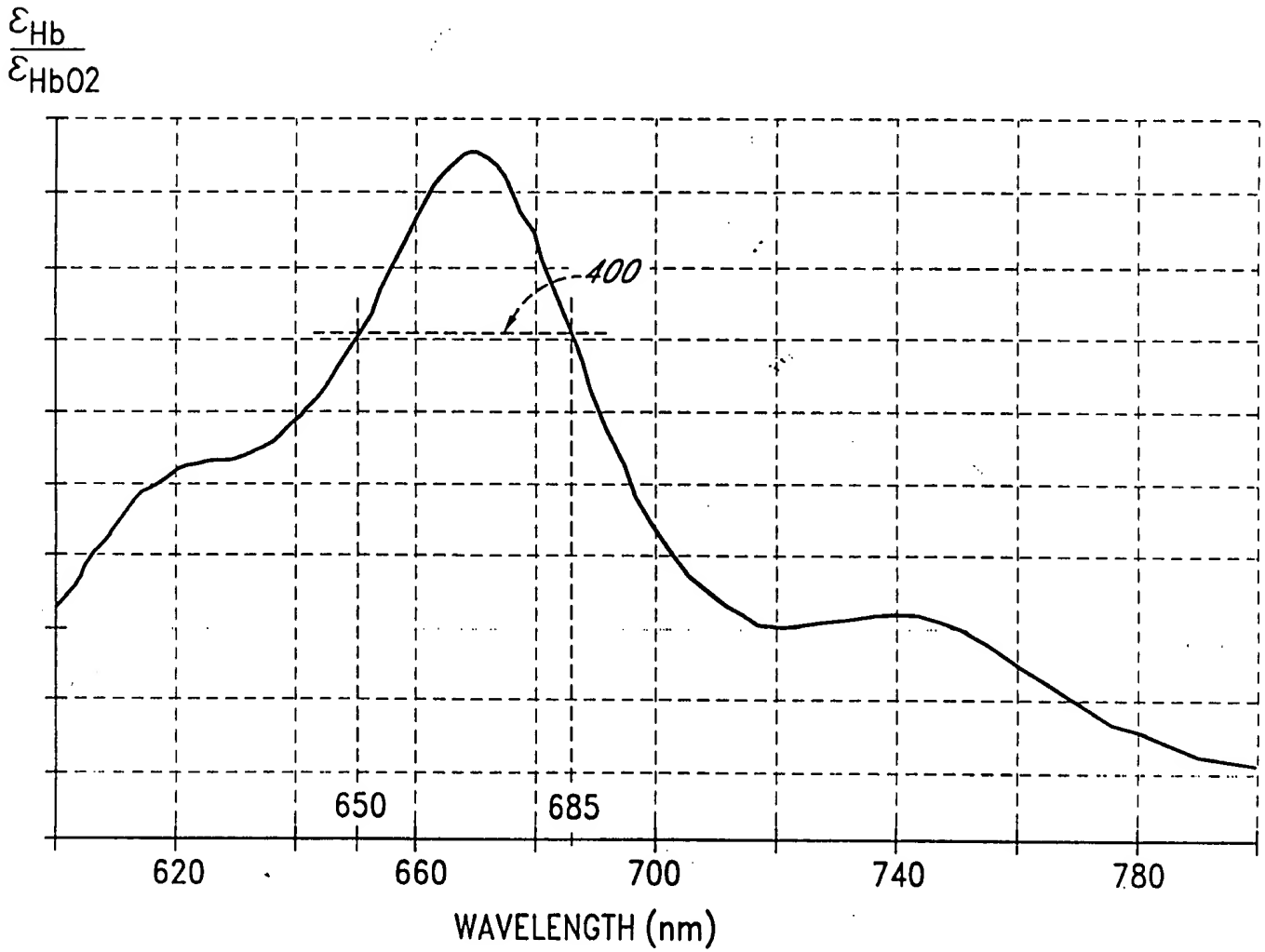


FIG. 13

08/07/2004, 09:31:50

FIG. 15

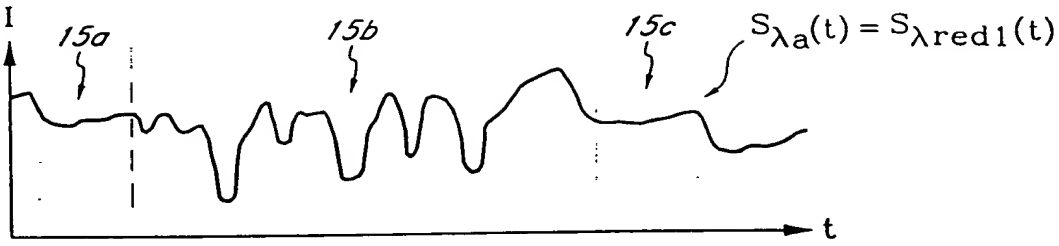


FIG. 16

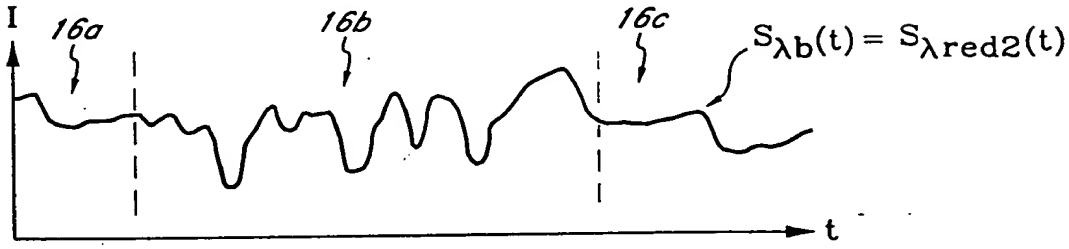


FIG. 17

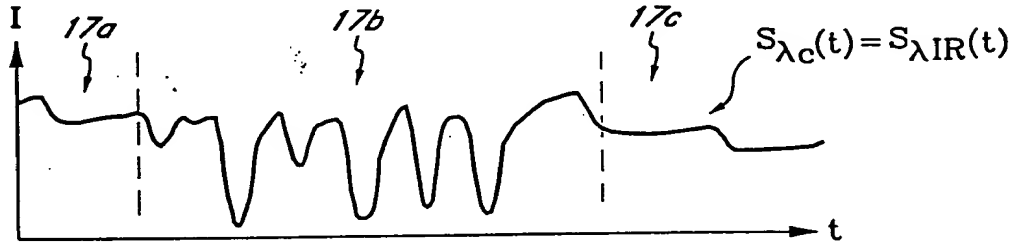


FIG. 18

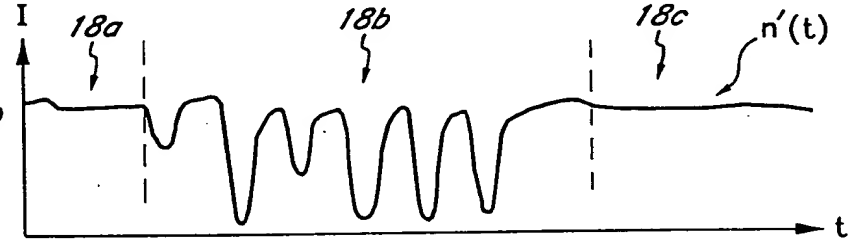
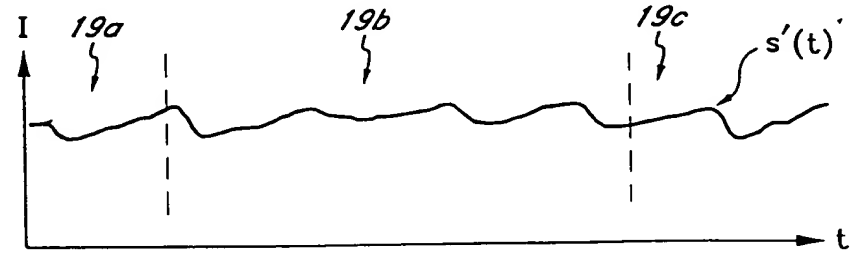


FIG. 19



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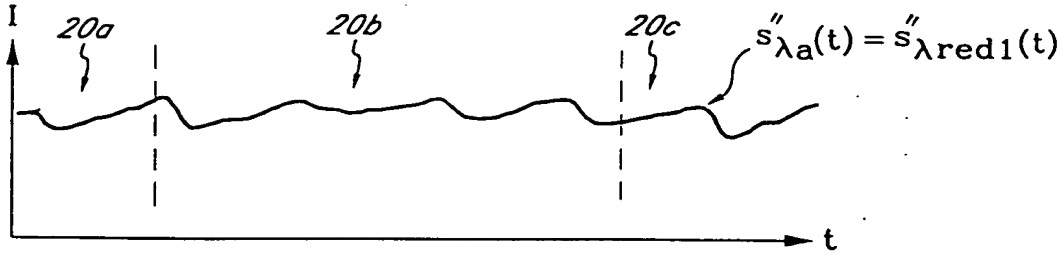


FIG. 20

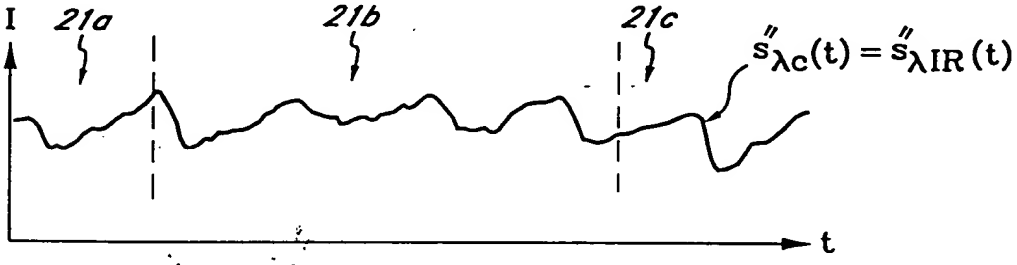


FIG. 21

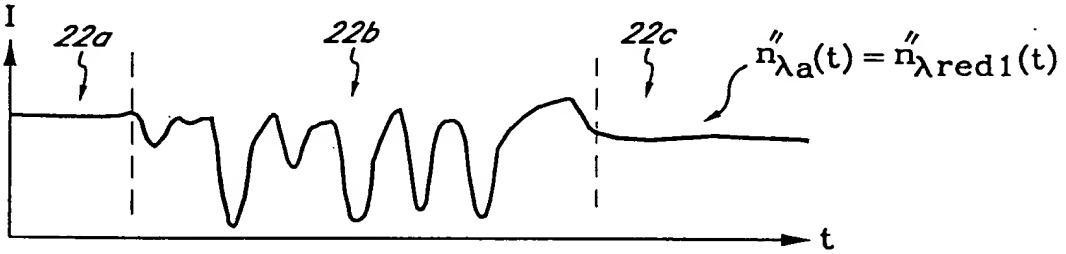


FIG. 22

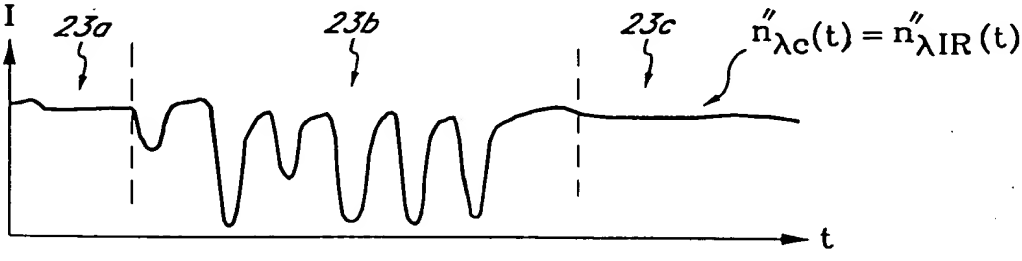


FIG. 23

86420-4050-4050-4050

FIG. 24

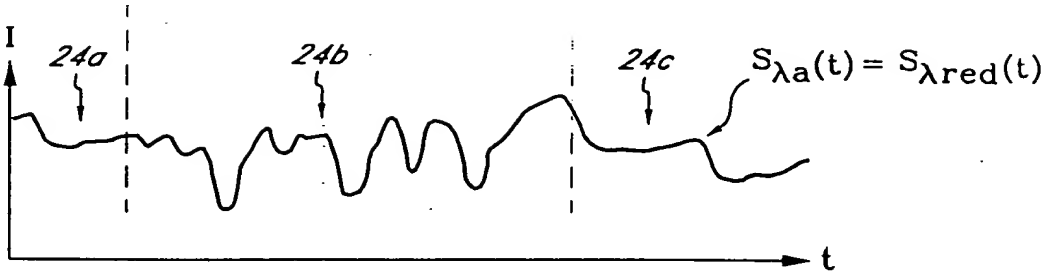


FIG. 25

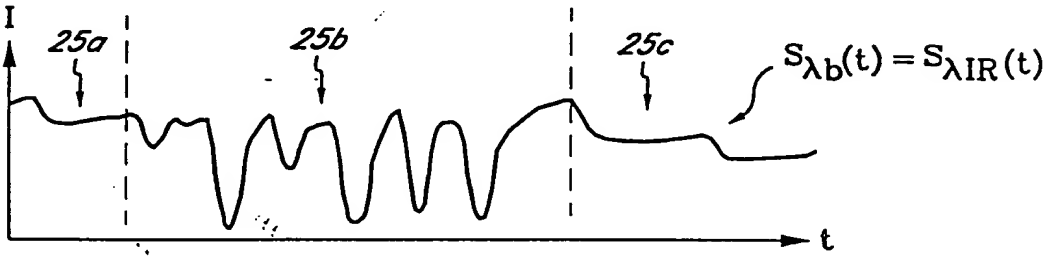


FIG. 26

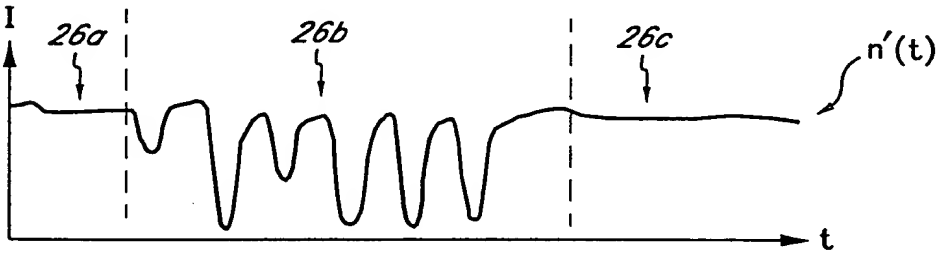
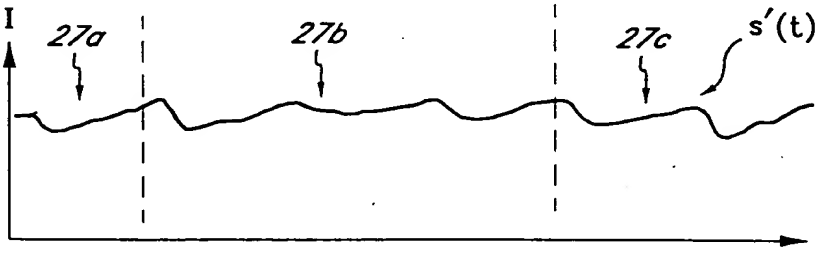


FIG. 27



09/14/2004 08:07:09

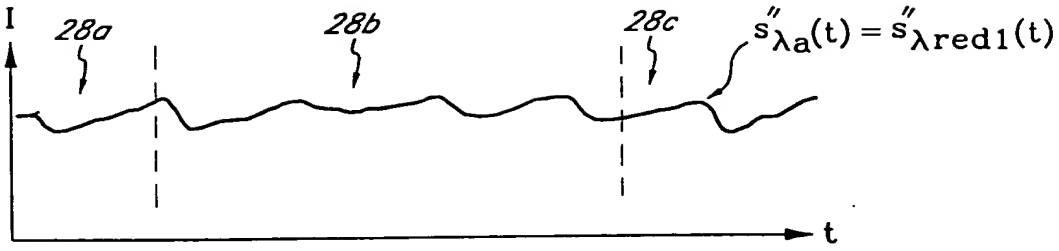


FIG. 28

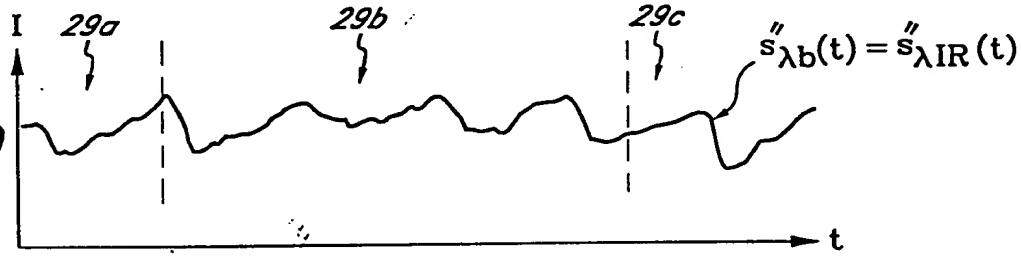


FIG. 29

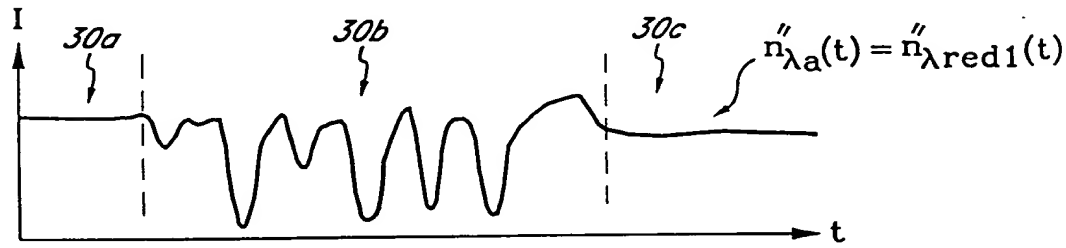


FIG. 30

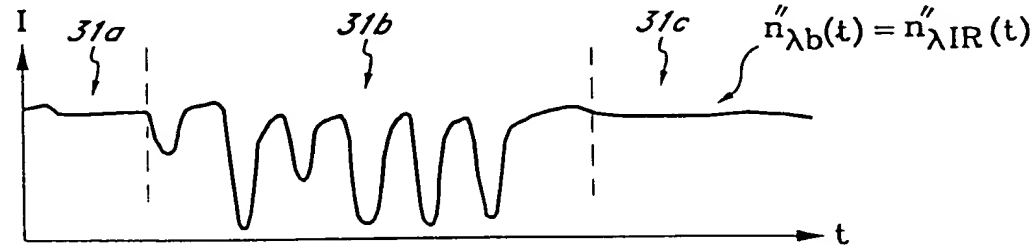


FIG. 31

86Z020"h09TTT60

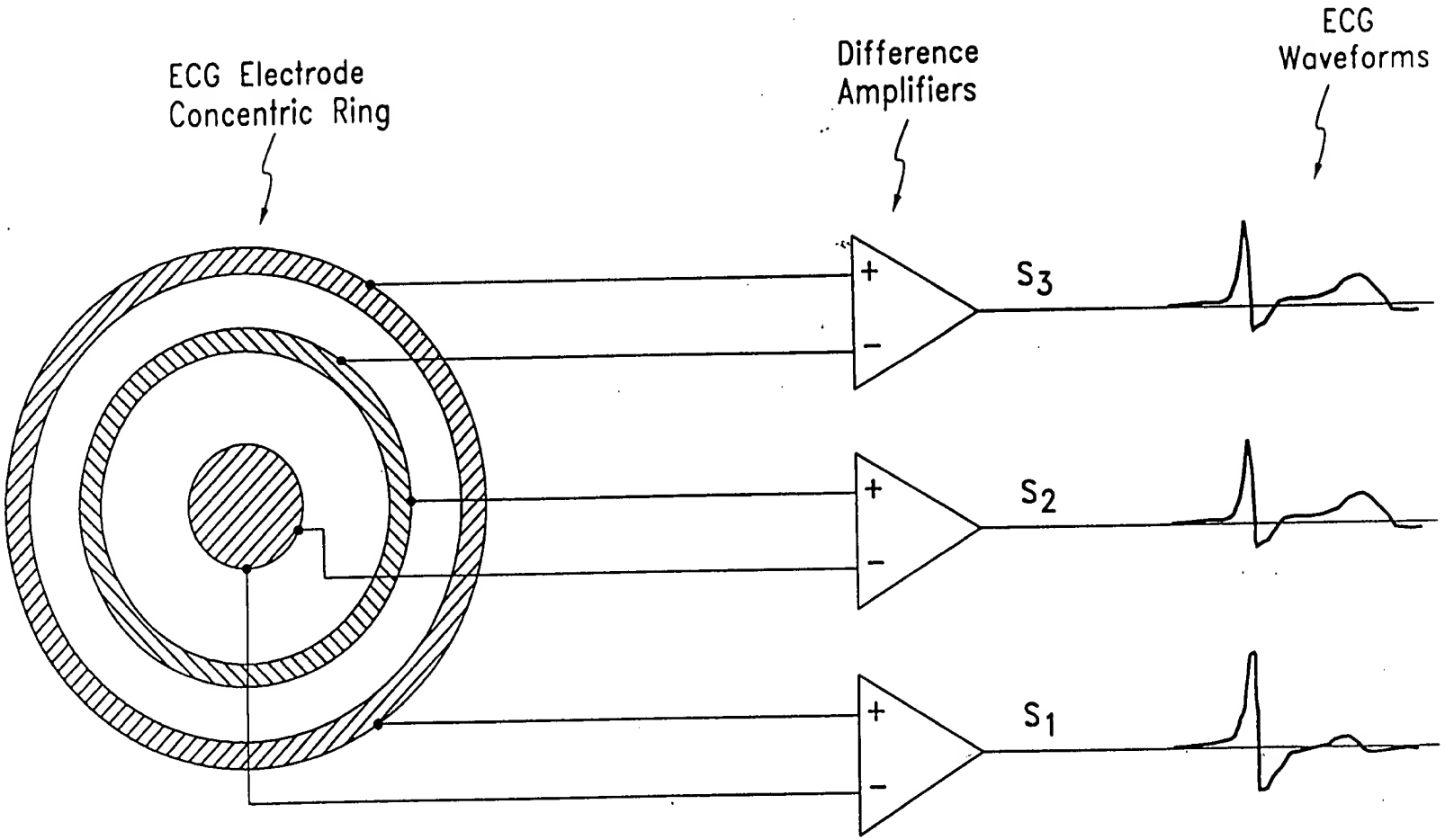



FIG. 32